

Detection

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IMPACT ON ANTELOPE AND DEER SAGEBRUSH RANGES
BY THE SAGEBRUSH DEFOLIATOR - Aroga websteri

By

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Introduction

According to A. A. Beetle (1960) there are about 270 million acres of sagebrush in the Western United States, with an estimated 18 million acres in California. (Figure I) Sampson and Jespersen (1963) state, "Sagebrush is an exceedingly important food plant for the Rocky Mountain mule deer and for antelope. On the interstate winter range in northern California, it accounted for an average of 19 percent of the Rocky Mountain mule deer diet. In California, big sagebrush proved to be a staple food for the prong-horn antelope throughout the year according to stomach analyses. The degree of utilization by these animals was as follows: 95.2 percent by volume in December; 40.8 percent in May and June; and 35.9 percent in August and September."

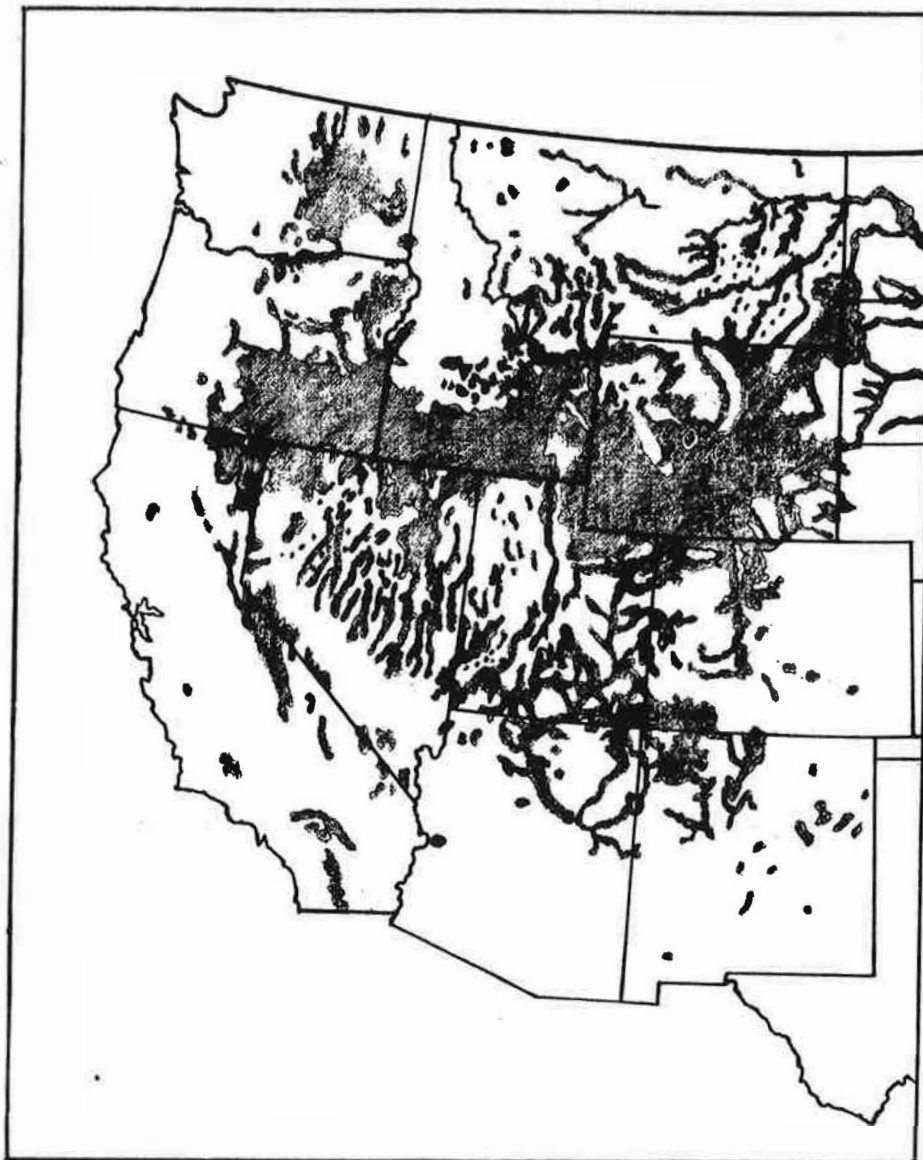
Extensive areas of sagebrush are currently being threatened by the sagebrush defoliator, Aroga websteri Clarke in many of the western States. This may have a serious impact on the carrying capacity of many sagebrush ranges, particularly those used by deer and antelope during the critical winter months.

There is practically no published information on the sagebrush defoliator except for an article by Clarke (1942) when he described this species from specimens collected at Pullman, Washington. Henry (1961) has a fairly comprehensive unpublished manuscript on the biology of this insect in Idaho.

Distribution of the Insect

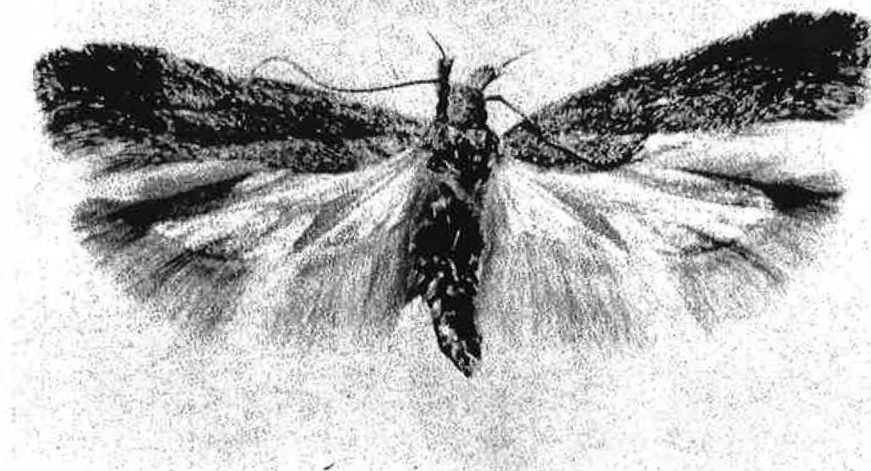
The sagebrush defoliator has been reported from the States of California, Idaho, Montana, Nevada, Oregon, Utah, and Washington. Since it is a native insect it probably occurs in other western States where sagebrush is abundant.

^{1/} Paper presented at the Interstate Antelope Conference, Alturas, California. December, 1963.

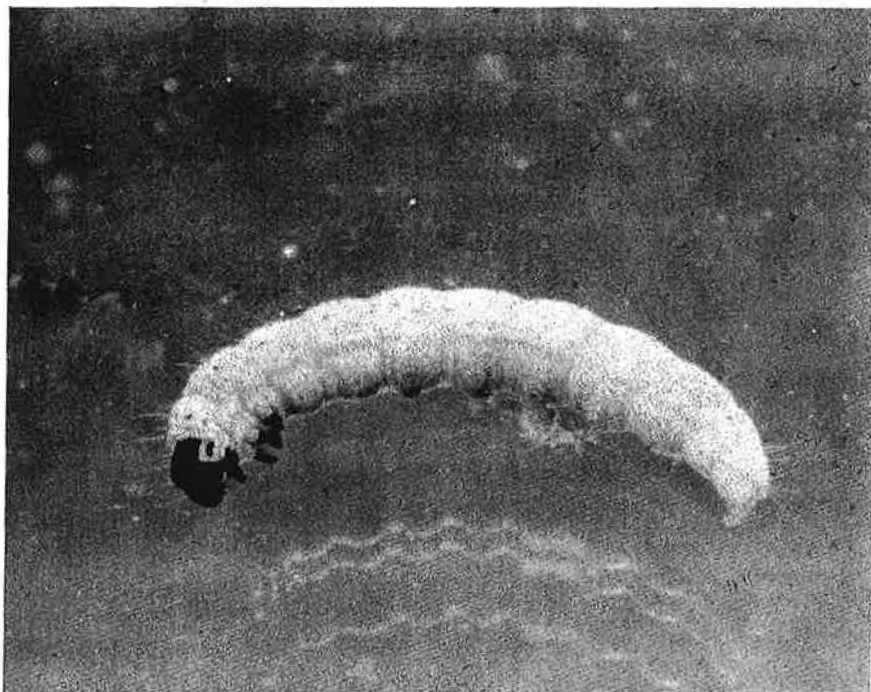


DISTRIBUTION OF SAGEBRUSH IN WESTERN UNITED STATES

(From A. A. Beetle 1960)



A



B

Figure II

Aroga websteri, A - Adult, B - Larva x 7

By

Bureau of Entomology, Dept. of Agriculture
State of California

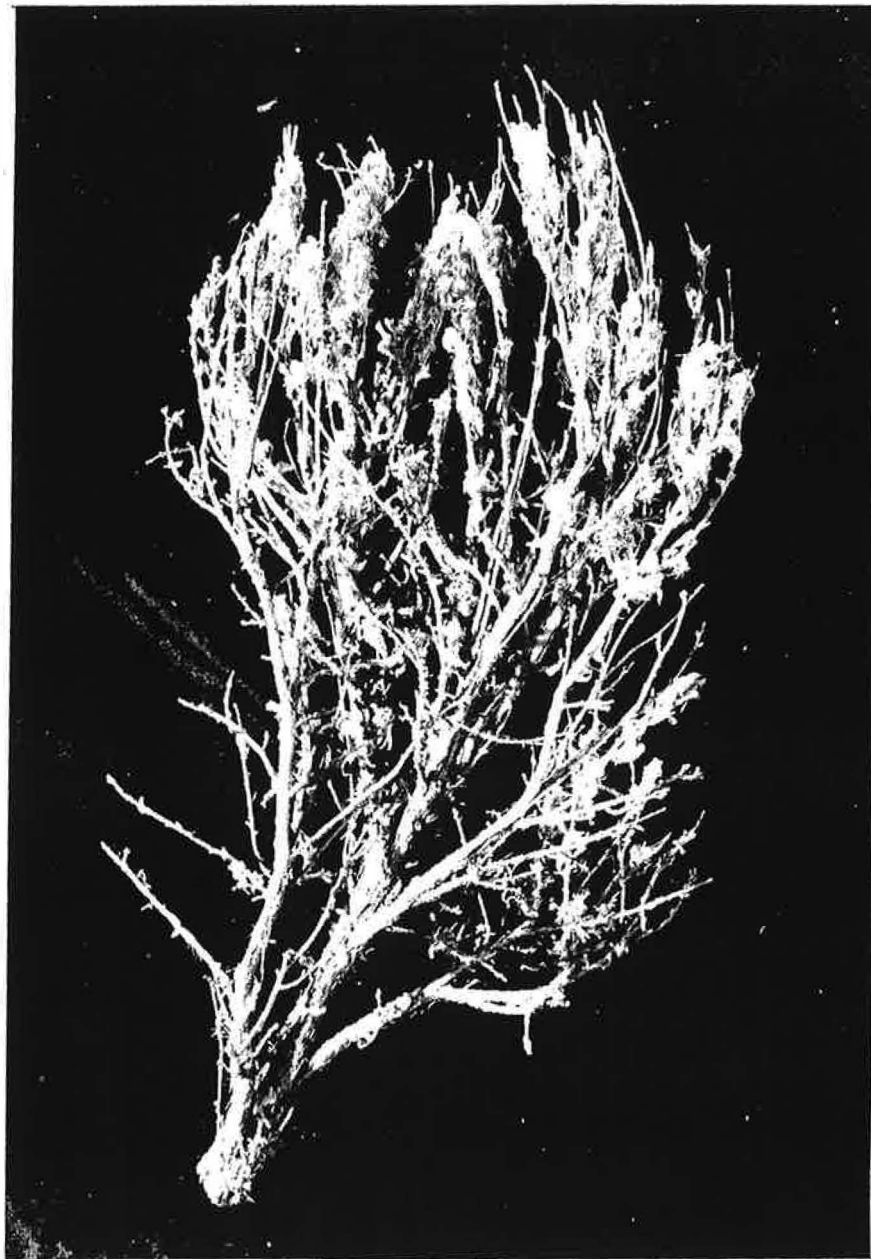


Figure III

A sagebrush plant completely defoliated by Aroga websteri showing the webbing of severed leaves, which is a characteristic symptom of defoliation.